

In the Claims

Please replace the claims with the following clean version of the entire set of pending claims, in accordance with 37 C.F.R. § 1.121(c)(1)(i). Cancel all previous versions of any pending claim.

A marked up version showing amendments to any claims being changed is provided in one or more accompanying pages separate from this amendment in accordance with 37 C.F.R. § 1.121(c)(1)(ii). Any claim not accompanied by a marked up version has not been changed relative to the immediate prior version, except that marked up versions are not being supplied for any added claim or canceled claim.

Cancel claims 1-32.

Add new claims 33-42.

H2
33. A method of forming a thin film transistor comprising the following steps:

forming a polycrystalline thin film transistor layer and defining a channel region within the polycrystalline thin film transistor layer;

forming a fluorine containing layer proximate the polycrystalline thin film transistor layer;

transferring fluorine into the polycrystalline thin film transistor layer from the fluorine containing layer to form Si-F bonds within the channel region of the polycrystalline thin film transistor layer; and

forming a transistor gate proximate the channel region.

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Contd

34. The method of claim 33 wherein the transistor gate is formed after forming the fluorine containing layer.

35. The method of claim 33 wherein the transistor gate is formed before forming the polycrystalline thin film transistor layer.

36. The method of claim 33 wherein the transistor gate is formed after forming the polycrystalline thin film transistor layer.

37. A method of forming a bottom-gated thin film transistor comprising the following steps:

forming a transistor gate;

forming a polycrystalline thin film transistor layer over the transistor gate;

forming a fluorine containing layer proximate the polycrystalline thin film transistor layer; and

transferring fluorine into the polycrystalline thin film transistor layer from the fluorine containing layer.

38. The method of claim 37 wherein the polycrystalline thin film transistor layer comprises silicon.

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Cont

39. A method of forming a thin film transistor comprising the following steps:

providing a substrate;

forming an insulative material over the substrate;

forming a polycrystalline thin film layer over the insulative material;

forming a sacrificial fluorine containing layer on the polycrystalline thin film layer by chemical vapor deposition utilizing WF_6 and SiH_4 precursors;

transferring fluorine from the sacrificial fluorine containing layer into the polycrystalline thin film layer to form Si-F bonds within the polycrystalline thin film layer;

after transferring fluorine from the sacrificial fluorine containing layer, removing the sacrificial layer from on the polycrystalline thin film layer; and

after removing the sacrificial layer, forming a transistor gate operatively proximate the thin film transistor layer.

40. The method of forming a thin film transistor of claim 39 wherein the polycrystalline thin film layer is provided before the fluorine containing layer is provided.

41. The method of forming a thin film transistor of claim 39 wherein the polycrystalline thin film layer comprises silicon.

*Any
cont*

42. A method of forming a thin film transistor, comprising:

forming a thin film transistor layer of material on an insulative layer; the material comprising one or both of germanium and silicon, and comprising grain boundaries;

forming a sacrificial fluorine containing layer over the thin film transistor layer by chemical vapor deposition utilizing WF_6 and SiH_4 precursors;

driving fluorine from the fluorine containing layer into the thin film transistor layer to incorporate fluorine within the grain boundaries;

after the driving, removing the sacrificial layer from over the thin film transistor layer; and

incorporating dopants within the thin film transistor layer to dope the thin film transistor layer.

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